GPU Performance of P2Z on Summit (All)
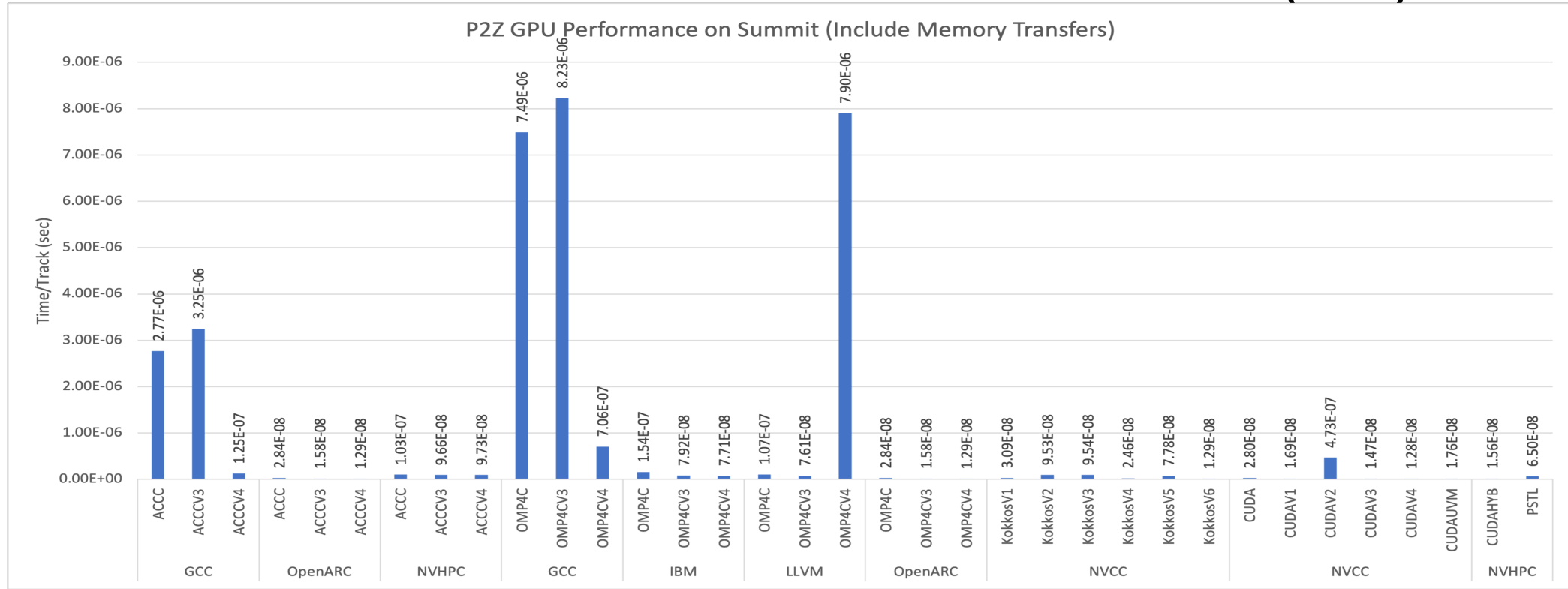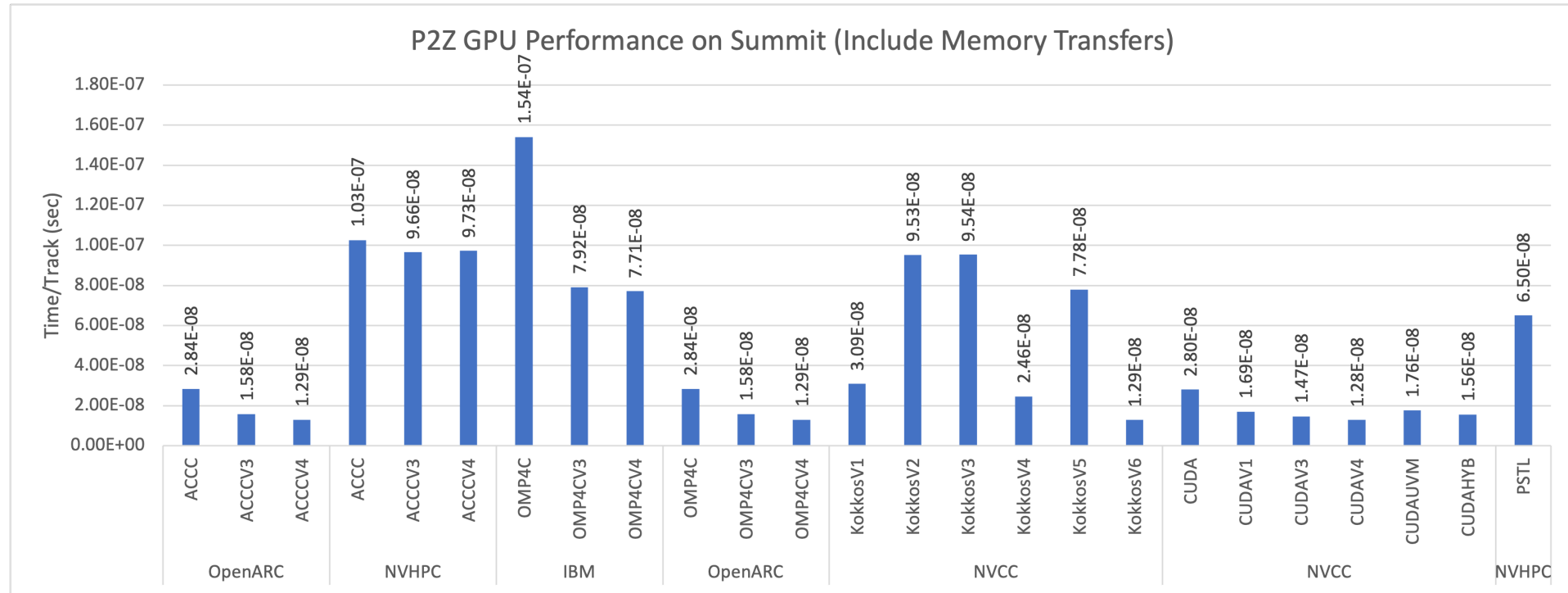

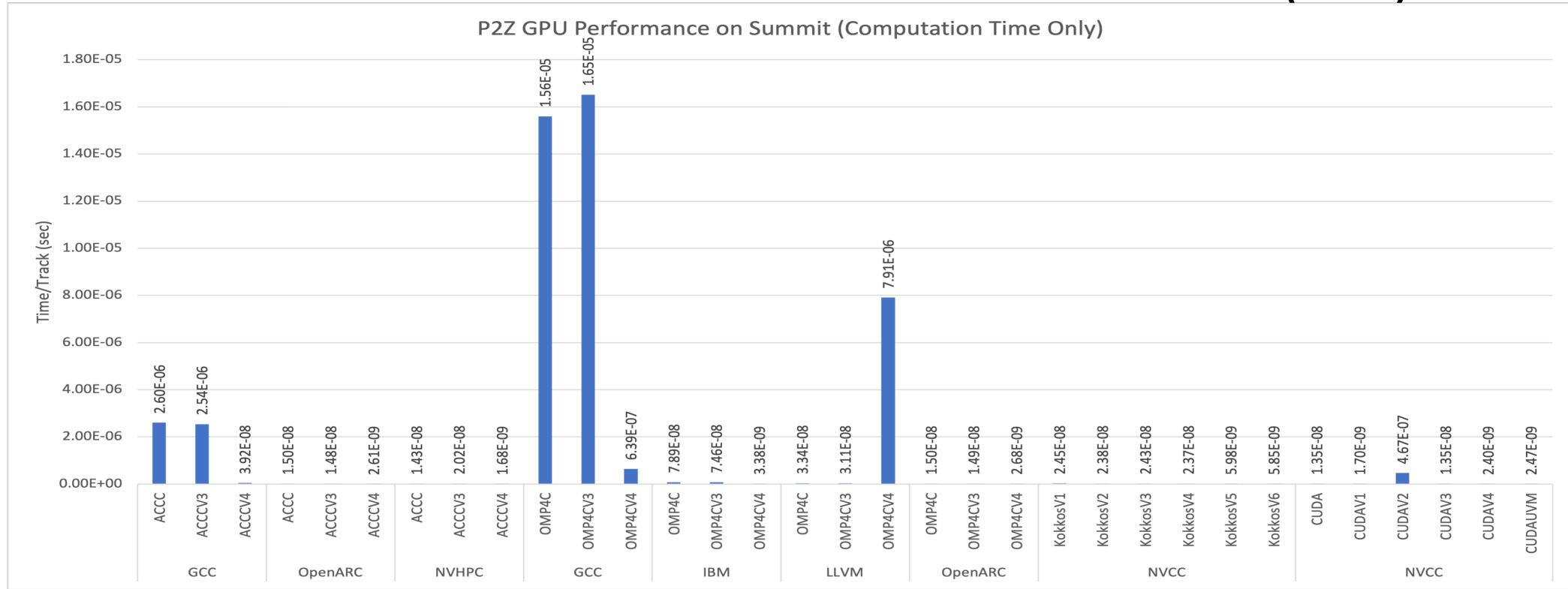P2Z GPU Performance on Summit (Include Memory Transfers)

- Array-Of-Structures-Of-Arrays (AOSOA), UVM, Batched shared data on Shared Memory, Async: CUDA
- AOSOA, UVM, Thread-private data on Local Memory, Async: CUDAV1, CUDAUVM (C++)
- AOSOA, Batched shared data on Local Memory, Async: CUDAV2
- AOSOA, Batched shared data on Shared Memory, Async: CUDAV3, ACCCV3, OMP4CV3, KokkosV3 (single default stream), KokkosV4
- AOSOA, Batched shared data on Shared Memory, Sync: ACCC, OMP4C
- AOSOA, Thread-private data on Local Memory, Async: CUDAV4, CUDAHYB, PSTL, ACCCV4, OMP4CV4 , KokkosV5 (single default stream), KokkosV6
- Structures-Of-Arrays (SOA), UVM, Batched shared data on Shared Memory, Async (single default stream): KokkosV1
- SOA, Batched shared data on Shared Memory, Async (single default stream): KokkosV2

GPU Performance of P2Z on Summit (Subset)

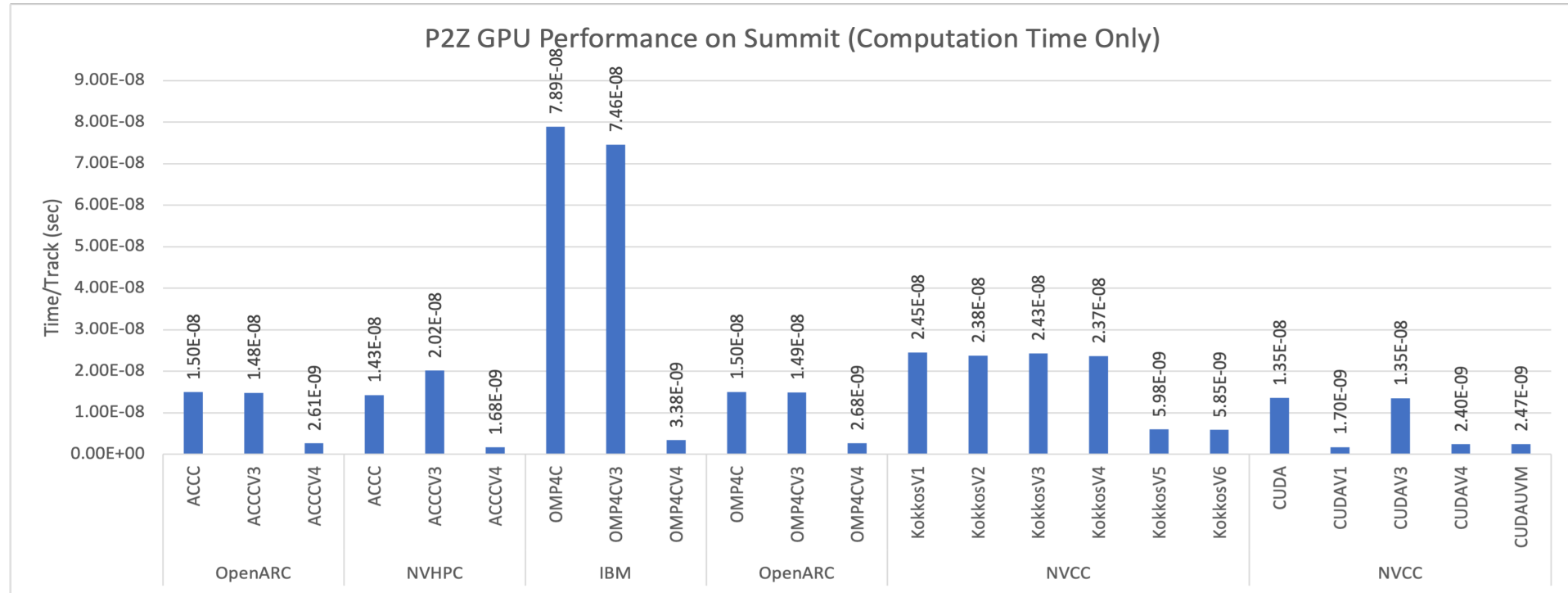P2Z GPU Performance on Summit (Include Memory Transfers)

- Array-Of-Structures-Of-Arrays (AOSOA), UVM, Batched shared data on Shared Memory, Async: CUDA
- AOSOA, UVM, Thread-private data on Local Memory, Async: CUDAV1, CUDAUVM (C++)
- AOSOA, Batched shared data on Local Memory, Async: CUDAV2
- AOSOA, Batched shared data on Shared Memory, Async: CUDAV3, ACCCV3, OMP4CV3, KokkosV3 (single default stream), KokkosV4
- AOSOA, Batched shared data on Shared Memory, Sync: ACCC, OMP4C
- AOSOA, Thread-private data on Local Memory, Async: CUDAV4, CUDAHYB, PSTL, ACCCV4, OMP4CV4 , KokkosV5 (single default stream), KokkosV6
- Structures-Of-Arrays (SOA), UVM, Batched shared data on Shared Memory, Async (single default stream): KokkosV1
- SOA, Batched shared data on Shared Memory, Async (single default stream): KokkosV2

GPU Performance of P2Z on Summit (All)

P2Z GPU Performance on Summit (Computation Time Only)

- Array-Of-Structures-Of-Arrays (AOSOA), UVM, Batched shared data on Shared Memory, Async: CUDA
- AOSOA, UVM, Thread-private data on Local Memory, Async: CUDAV1, CUDAUVM (C++)
- AOSOA, Batched shared data on Local Memory, Async: CUDAV2
- AOSOA, Batched shared data on Shared Memory, Async: CUDAV3, ACCCV3, OMP4CV3, KokkosV3 (single default stream), KokkosV4
- AOSOA, Batched shared data on Shared Memory, Sync: ACCC, OMP4C
- AOSOA, Thread-private data on Local Memory, Async: CUDAV4, CUDAHYB, PSTL, ACCCV4, OMP4CV4 , KokkosV5 (single default stream), KokkosV6
- Structures-Of-Arrays (SOA), UVM, Batched shared data on Shared Memory, Async (single default stream): KokkosV1
- SOA, Batched shared data on Shared Memory, Async (single default stream): KokkosV2

GPU Performance of P2Z on Summit (Subset)

P2Z GPU Performance on Summit (Computation Time Only)

- Array-Of-Structures-Of-Arrays (AOSOA), UVM, Batched shared data on Shared Memory, Async: CUDA
- AOSOA, UVM, Thread-private data on Local Memory, Async: CUDAV1, CUDAUVM (C++)
- AOSOA, Batched shared data on Local Memory, Async: CUDAV2
- AOSOA, Batched shared data on Shared Memory, Async: CUDAV3, ACCCV3, OMP4CV3, KokkosV3 (single default stream), KokkosV4
- AOSOA, Batched shared data on Shared Memory, Sync: ACCC, OMP4C
- AOSOA, Thread-private data on Local Memory, Async: CUDAV4, CUDAHYB, PSTL, ACCCV4, OMP4CV4 , KokkosV5 (single default stream), KokkosV6
- Structures-Of-Arrays (SOA), UVM, Batched shared data on Shared Memory, Async (single default stream): KokkosV1
- SOA, Batched shared data on Shared Memory, Async (single default stream): KokkosV2